Extraperitoneal robot-assisted radical prostatectomy - initial 60 cases

European Urology Open Science 2021;33(Suppl 1):S102

Petrut B.¹, Bujoreanu E.C.², Coste B.³, Maghiar T.³

¹Iuliu Hatieganu University of Medicine and Pharmacy, Dept. of Urology, Cluj-Napoca, Romania, ²Prof. Dr. I. Chiricuta Institute of Oncology, Dept. of Urology, Cluj-Napoca, Romania, ³Pelican Hospital - Medicover Group, Dept. of Urology, Oradea, Romania

Introduction & Objectives: The extraperitoneal approach in treating prostatic adenocarcinoma is less frequently used compared to the transperitoneal one, challenging the surgical team to reach trifecta and pentafecta in a small space of dissection without having the robotic arms in conflict. The objective of this paper is to describe the surgical technique of the extraperitoneal approach used for initial 60 Da Vinci X-assisted cases.

Materials & Methods: Key operative steps are explained using a video collage, analyzing peri and post operative data with follow-up information. The advantages and disadvantages of the extraperitoneal approach are discussed. Additionally, the 3D laparoscopic treatment of pelvic lymphocele 4 months after initial surgery is exemplified along with Indocyanine green usage for lymphatic trajectories.

Results: 60 patients underwent Da Vinci X robot-assisted radical prostatectomy with the majority of them requiring pelvic lymphadenectomy. Perioperative outcomes: mean operative time (docking 30 min, pelvic lymphadenectomy 31 min, radical prostatectomy and reconstruction 62 min), mean blood loss 250 ml, mean hospitalization days 21 with grade I Clavien-Dindo complications. Specimen analysis revealed 25% cases with Gleason score changes compared to diagnosis (biopsy/TUR P). 70% of patients obtained social continence within the 24 months follow-up. Additional follow up data: 20% cases of pelvic lymphocele, 1 case of urinary lithiasis and 1 case of anastomotic tissue lappet (presenting as a subvesical obstruction syndrome), treated accordingly with no further complications.

Conclusions: The extraperitoneal approach requires no steep Trendelenburg position and is ideal for patients with a higher BMI, previous abdominal surgical history or pulmonary affection, associating lower bowel related and urine leakage complications. However, it offers a small working space with the risk of robotic arms collision and no peritoneal lymphocele drainage, if the case. To minimize the risk, an opening of the peritoneum can be performed at the end of the surgery. Da Vinci X robot offers gentle tissue manipulation and improved surgical precision, with possible implications in oncologic and functional results.